Finding the Gaps: An Assessment of Aquatic Biodiversity for the Great Lakes Region

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ABSTRACT

An Aquatic Gap program is being proposed for riverine and coastal systems for the Great Lakes region. The Great Lakes are the largest system of fresh water on earth and provide habitat for a wide variety of aquatic organisms unique to these systems. The aquatic biodiversity of the region is being threatened due to increased population growth from urban expansion, more intensive agricultural practices, continued logging and coastal zone shoreline destruction.

The concept of aquatic gap is to identify the gaps in conservation of aquatic species or communities in order to provide managers, planners, scientists, and policy makers with the information they need to make better-informed decisions. The gap analysis program uses a bottom up approach drawing upon mutual cooperation of natural resource institutions (state, federal, and private) within each State or region. A geographic information system (GIS) and relational database are used as tools for gap analysis to map, summarize, characterize, and assess the status of aquatic biodiversity and associated conservation gaps for a given region.

The feasibility for conducting Aquatic Gap for both riverine and coastal systems will be assessed by summarizing the status and availability of existing data for the Great Lakes States, including aquatic biological data, and spatial data layers related to physical characteristics of the land and in-stream habitat. A list of stakeholders will be identified and contacted for their input. An integrated approach will be developed in which common methods and protocols will be established and results will be comparable across the landscape.